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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MENON, KRISHNAN S

ART UNIT	PAPER NUMBER
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1723

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DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,304

Applicant(s)

CLARK ET AL.

Examiner

Krishnan S Menon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7,9-11,13,16,17 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 24-26 is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,9-11,13,16,17,27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claims 1-3,5-7,9-11, 13,16,17 and 24-28 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, and 5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Matkovich et al (US 4,797,259).

Matkovich discloses a 96 array well filter (instant claim 5) (col 1 lines 30-33) on a plate with filter adhesively bonded to the bottom of the well (col 1 line 68-col 2 line 5; col 3 lines 34-37; col 12 lines 45-60) with filtration by pressure differential (col 11 31-33) (instant claim 1), microfiltration as in instant claim(s) 2 (col 2 lines 6-8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matkovich et al (US 4,797,259).

Matkovich teaches all the elements of claim 6 except for the 384 well plate. However, it would be obvious to one of ordinary skill in the art at the time of invention that the 384 well plate is only a further replication of the 'plurality of wells' (abstract) in the plate like the 96 well plate as taught by Matkovich; one would make a 384-well plate for processing larger quantity of samples.

3. Claims 1,2,7,10,11,13,16,17,27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al (US 5,223,133) in view of Cole et al (US 4,246,339).

Clark (133) discloses a multi-well filter plate comprising a plate (12-Fig 1) having a top and bottom surface, a plurality of holes through the plate, a filter having a first and second surface (23-fig 3), the first surface of the filter sealed to the bottom surface of the plate (19-fig 3) by an adhesive (col 4 lines 18-23, 60-69), seal being leak tight and the liquid passes through the filter on applying a pressure differential (col 3 lines 60-63) as in instant claim 1 and 27. Filter is selected from microporous or ultrafiltration membranes (instant claim 2, 16, 17 and 27 and 28) and cellulose,

polyamide, polysulfone, etc, (instant claim 11) (col 4 lines 22-40). The material for the plate can be of ABS, polystyrene, etc (instant claim 10, 13) (col 4 lines 42-46; lines 9-12).

Clark does not specifically state using adhesive to seal the membrane to the bottom of the well as in instant claim(s) 1 and 27. Cole (339) teaches sealing the membrane to the bottom of the well with an adhesive in a multi-well filter (see fig 1-4, col 2 lines 55-65). It would be obvious to one of ordinary skill in the art at the time of invention to use adhesive to seal the membrane to the bottom of the well as taught by Cole in the teachings of 'any conventional bonding method' of Clark (col 4 lines 17-20) for convenience and quick detachment as taught by Clark. The adhesive can be light or thermally activated as in Clark (lines 62-64) (instant claim 7).

Re the 384 wells in claim 27 and 28, having 384 wells is only mere replications of 'plurality of wells' of Clarke. (Note: mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v Bemis Co.*). Re claim 28 wherein the ultrafiltration membrane is adhered to the well bottom from the first surface having smaller pores, it would be obvious to one of ordinary skill in the art at the time of invention that ultrafiltration membranes have smaller pores on the filtration surface (first surface) compared to the back surface (second surface), and one would attach the filtration surface to the bottom of the well so that the fluid to be filtered within the well is in contact with the filtration surface.

4. Claim 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matkovich et al (US 4,797,259) in view of Fernwood et al (US 5,141,719).

Matkovich et al (US 4,797,259) teaches all the elements of the instant claim(s) as in claim 1 above except the parts being made by injection molding or punching plastic sheets (instant claim(s)

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3), and on the pour spout on the director sheet (instant claim 9). Fernwood (5,141,719) teaches a multi-well filter with a director sheet having spouts (15-fig 1) with injection molded plastic parts (5 lines 33-40). It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Fernwood (719) in the multi-well filter of Matkovich as alternate but equivalent construction for equivalent function, for convenience and for properly directing the drops of filtrate to the collection wells (see Fernwood col 2 lines 9-26).

Allowable Subject Matter

Claims 24-26 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The closest prior art for the instant claim(s) is Matkovich et al (US 4,797,259). Matkovich does not teach forming troughs to contain the adhesive in the well bottom surface, or providing cuts in the membrane to seal through the membrane to prevent cross talk as in the instant claim(s). These improvements are also not readily apparent to one of ordinary skill in the art.

Response to Arguments

Argument re Clark relates to a transfer device: Clark teaches a multi-well ultrafiltration or microfiltration membrane filter (see col 4), irrespective of whether it is used as a filter or a transfer device. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to

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be inherent in the prior art reference); see also *In re Swinehart*, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); <*In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).

“[A]pparatus claims cover what a device is, not what a device does.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)

Argument re “adhere” in Matkovitch ref: Merriam Webster’s Dictionary’s Collegiate Dictionary, 10th edition, teaches Adhere as ‘to hold fast or stick by... glue...’. Matkovitch teaches adhering, which is attaching, among other means, by an adhesive. Applicant uses adhesive in its broadest sense in the specification: see para 5 of the specification. Anything that seals the parts together could be an adhesive, including by light curing, heat curing, glue, or simply melting and sealing (as in melt seal or heat seal). Also, claims recite an apparatus, and the adhesive becomes an indifferentiable integral part of the structure, which is confirmed by the breadth of the adhesion means described in the specification and by the references.

Argument re the common sheet membrane for all wells: the claims do not recite such a common or single sheet.

Argument re 384 wells: It is a mere duplication, however difficult it is to make. Argument about ‘special means of making the 384 well plate’ is not commensurate in scope with the claims. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

In response to applicant’s argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the

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teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case re no motivation in combining Clark with Cole, Clark is the primary reference, which teaches 'any conventional bonding method' for sealing the membrane to the bottom of the well. Cole teaches conventional methods of bonding, which are using an adhesive, heat seal, solvent bonding, etc. One would be motivated to use adhesive from Cole as the "conventional means" to seal the membrane with the well of Clark.

Re the submitted press release from decode genetics, the "MultiScreen TM" 384 platform is not linked to being the present invention. To be pertinent to the issue of nonobviousness, the commercial success of devices falling within the claims of the patent must flow from the functions and advantages disclosed or inherent in the description in the specification. Furthermore, the success of an embodiment within the claims may not be attributable to improvements or modifications made by others. *In re Vamco Machine & Tool, Inc.*, 752 F.2d 1564, 224 USPQ 617 (Fed. Cir. 1985).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the

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THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 703-305-5999. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Krishnan Menon
Patent Examiner
July 1, 2003


W. L. WALKER
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